

Amendments to the Claims:

A listing of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-13. (Canceled)

14. (Previously presented) A wireless network, comprising:

a base station in communication with a plurality of terminals;

at least one terminal of the plurality of terminals operable to be assigned to a radio cell of the base station for exchanging user data and control data, the terminal being further operable to transmit a first signaling sequence as an indication to use one of a plurality of contention channels;

wherein the base station, upon receiving the first signaling sequence, is operable to broadcast a provision message indicating a channel that is available to the plurality of terminals for contention-based access.

15. (Previously presented) The wireless network of claim 14,

wherein the terminal is further operable to transmit the first signaling sequence during a specific time slot of a transmitting-end reference frame; and

wherein, after receiving the provision message from the base station, the terminal is further operable to transmit at least one of a terminal identification and a data packet over the channel to the base station.

16. (Previously presented) The wireless network of claim 14, wherein the base station includes:

a matched filter operable to generate a pulse; and

a peak detector operable to detect a peak of the pulse during a specific time slot of a receiving-end reference frame.

17. (Previously presented) The wireless network of claim 14, wherein the terminal is further operable to transmit the first signaling sequence as one of a Gold sequence, a Kasami sequence or a Golay sequence during a specific time slot of a transmitting-end reference frame.

18. (Previously presented) The wireless network of claim 14, wherein the terminal is further operable to transmit a second signaling sequence to the base station in response to a failure to receive an acknowledgement of the reception of the first signaling sequence by the base station within a predefined period of time after transmission of the first signaling sequence to the base station.

19. (Previously presented) The wireless network of claim 14, wherein, subsequent to receiving the provision message, the terminal is further operable to transmit a second signaling sequence to the base station in response to a failure to receive an acknowledgement of a reception of data by the base station over an assigned contention channel.

20. (Previously presented) The wireless network of claim 14, wherein the terminal is further operable to re-transmit the first signaling sequence to the base station with increased energy in response to a failure to receive an acknowledgement of the reception of the first signaling sequence by the base station within a predefined period of time after the first transmission of the first signaling sequence to the base station.

21. (Previously presented) The wireless network of claim 14,
wherein the terminal is further operable to receive an identification of a specific time slot of a reference frame, and to transmit the first signaling sequence during the specific time slot; and

wherein, after receiving the provision message, the terminal is further operable to transmit at least one of a terminal identification and a data packet over a first contention channel to the base station in response to the provision message.

22. (Previously presented) The wireless network of claim 14, where the first signaling sequence is one of a plurality of signaling sequences associated with the wireless network.

23. (Previously presented) The wireless network of claim 22, wherein each signaling sequence is further associated with a different data rate.

24. (Previously presented) A base station in a wireless network for exchanging user data and control data with a plurality of terminals operable to be assigned a radio cell, the base station comprising:

- a receiver operable to detect a signaling sequence from at least one of the terminals; and

- a transmitter operable to transmit a provision message in response to the signaling sequence, the provision message indicating a channel that is available to the plurality of terminals for contention-based access.

25. (Previously presented) The base station of claim 24, wherein the receiver includes:

- a matched filter operable to generate a pulse; and

- a peak detector operable to detect a peak of the pulse during a specific time slot of a receiving-end reference frame.

26. (Currently amended) A terminal operable to be assigned a radio cell in a wireless network of a plurality of terminals for exchanging user data and control data with a base station, the terminal comprising:

- a transmitter operable to transmit a first signaling sequence to the base station, the signaling sequence being indicative of a request for a channel to be made available for contention-based access by the transmitter; and

- a receiver operable to receive a provision message from the base station subsequent to the transmission of the first signaling sequence by the transmitter, the provision message indicating the channel that is available to the plurality of terminals for contention-based access.

27. (Previously presented) The terminal of claim 26,
wherein the transmitter is further operable to transmit the first signaling sequence during a specific time slot of a transmitting-end reference frame; and
wherein, after receiving the provision message, the transmitter is further operable to transmit at least one of a terminal identification and a data packet over the channel to the base station.
28. (Previously presented) The terminal of claim 26, wherein the transmitter is further operable to transmit the first signaling sequence as one of a Gold sequence, a Kasami sequence or a Golay sequence during a specific time slot of a transmitting-end reference frame.
29. (Previously presented) The terminal of claim 26, wherein the transmitter is further operable to transmit a second signaling sequence to the base station in response to a failure to receive an acknowledgement of the reception of the first signaling sequence by the base station within a predefined period of time after transmission of the first signal sequence to the base station.
30. (Previously presented) The terminal of claim 26, wherein, subsequent to receiving the provision message, the transmitter is further operable to transmit a second signaling sequence to the base station in response to a failure to receive an acknowledgement of a reception of data by the base station over the channel.
31. (Previously presented) The terminal of claim 26, wherein the transmitter is further operable to re-transmit the first signaling sequence to the base station with increased energy in response to a failure to receive an acknowledgement of the reception of the first signaling sequence by the base station within a predefined period of time after the first transmission of the first signal sequence to the base station.

32. (Previously presented) The terminal of claim 26,

wherein the transmitter is further operable to receive an identification of a specific time slot of a reference frame, and to transmit the first signaling sequence during the specific time slot; and

wherein, after receiving the provision message from the base station, the terminal is further operable to transmit at least one of a terminal identification and a data packet over the channel to the base station in response to the provision message.

33. (Currently amended) A method of exchanging user data and control data in a wireless network of a plurality of terminals between a base station and a terminal of the plurality of terminals operable to be assigned a radio cell, the method comprising:

transmitting a signaling sequence from the terminal to the base station, the signaling sequence being indicative of a request by the terminal to use a channel for contention-based access;

detecting the signaling sequence by the base station; and

broadcasting a provision message by the base station to the plurality of terminals in response to the request, the provision message indicating the channel that is available to the plurality of terminals for contention-based access.

34. (Previously presented) The wireless network of claim 14,

wherein the terminal, upon receiving the provision message, is further operable to transmit a registration request to the base station, and

wherein the base station, upon receiving the registration request, is further operable to acknowledge the reception of the registration request to the terminal and assign the terminal to the radio cell.

35. (Previously presented) The base station of claim 24, further comprising:

a registration element operable to acknowledge the reception of a registration request to the terminal and assign the terminal to the radio cell.

36. (Previously presented) The terminal of claim 26, further comprising:
a requesting element operable to format a registration request to be transmitted to the base station in response to the provision message received from the base station.

37. (Previously presented) The method of claim 33, further comprising:
transmitting a registration request to the base station from the terminal in response to the terminal receiving the provision message from the base station;
acknowledging receipt of the registration request by the base station; and
assigning the terminal to the radio cell.

38. (Previously presented) The wireless network of claim 14, wherein the channel is available for contention-based access for a limited time period.

39. (Previously presented) The base station of claim 24, wherein the channel is available for contention-based access for a limited time period.

40. (Previously presented) The method of claim 33, wherein the channel is available for contention-based access for a limited time period.